

TRANSLATION (HM-682PCT -- IPER)

TREATY ON INTERNATIONAL COOPERATION IN THE AREA OF PATENTS

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT ON PATENTABILITY

(Chapter II of the Treaty on International Cooperation in the Area of Patents)

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| Applicant's or Agent's File Ref. 42 080.gi.nb | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International Application No. PCT/EP2004/008130 | International Filing Date (Month/Day/Year) July 21, 2004 | Priority Date (Month/Day/Year) July 30, 2003 |
| International Patent Classification (IPC) or National Classification and IPC B21B29/00 | | |
| Applicant SMS DEMAG AKTIENGESELLSCHAFT et al. | | |

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|--|---|---------------------|--|----------|--|--|---------------------------------------|-----------------------------|---|---|---------------------------------------|-------------------------|--|--|---|---|
| <p>1. This international preliminary examination report has been prepared by the duly commissioned International Preliminary Examining Authority according to Article 35 and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 pages, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES; these comprise</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and the International Office) a total of 5 pages; these are</p> <ul style="list-style-type: none"><input type="checkbox"/> pages of the description, claims, and/or drawings which have been amended and are the basis for this report and/or pages containing rectifications that have been approved by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).<input type="checkbox"/> pages that replace earlier pages but which, for the reasons given in field No. 1, item 4, and in the supplementary field, in the opinion of this Authority, contain a change that goes beyond the disclosed contents of the international application in the version originally submitted. <p>b. <input type="checkbox"/> (sent only to the International Office): (please specify the type and number of the electronic data carrier(s)), which contain a sequence listing and/or the tables that belong to it, only in computer-readable form, as specified in the supplementary field regarding the sequence listing (see Section 802 of the Administrative Instructions)</p> | | | | | | | | | | | | | | | | |
| <p>4. This report contains indications relating to the following items:</p> <table><tr><td><input checked="" type="checkbox"/> Field No. I</td><td>Basis of the report</td></tr><tr><td><input checked="" type="checkbox"/> Field No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/> Field No. III</td><td>Nonestablishment of opinion with respect to novelty, inventive activity, and commercial viability.</td></tr><tr><td><input type="checkbox"/> Field No. IV</td><td>Lack of unity of invention.</td></tr><tr><td><input checked="" type="checkbox"/> Field No. V</td><td>Substantiated determination under Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination.</td></tr><tr><td><input type="checkbox"/> Field No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/> Field No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input type="checkbox"/> Field No. VIII</td><td>Certain observations on the international application</td></tr></table> | <input checked="" type="checkbox"/> Field No. I | Basis of the report | <input checked="" type="checkbox"/> Field No. II | Priority | <input type="checkbox"/> Field No. III | Nonestablishment of opinion with respect to novelty, inventive activity, and commercial viability. | <input type="checkbox"/> Field No. IV | Lack of unity of invention. | <input checked="" type="checkbox"/> Field No. V | Substantiated determination under Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination. | <input type="checkbox"/> Field No. VI | Certain documents cited | <input type="checkbox"/> Field No. VII | Certain defects in the international application | <input type="checkbox"/> Field No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/> Field No. I | Basis of the report | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Field No. II | Priority | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Field No. III | Nonestablishment of opinion with respect to novelty, inventive activity, and commercial viability. | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Field No. IV | Lack of unity of invention. | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> Field No. V | Substantiated determination under Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination. | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Field No. VI | Certain documents cited | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Field No. VII | Certain defects in the international application | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Field No. VIII | Certain observations on the international application | | | | | | | | | | | | | | | |

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| Date of submission of the petition: October 30, 2004 | Date of completion of this report: February 7, 2005 |
| Name and mailing address of the office assigned to perform the preliminary examination: European Patent Office D-80298 Munich Tel: +49 89 2399-0 Tx: 523656 epmu d Fax: +49 89 2399-4465 | Authorized Officer: Forciniti, M. Tel: +49 89 2399-7903 |

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT ON
PATENTABILITY**

International File No.: **PCT/EP2004/008130**

Field No. I Basis of the Report

1. With respect to the **language**, the report is based on the international application in the language in which it was submitted unless otherwise indicated under this item.
 - ☐ The report is based on a translation from the original language into the following language, which is the language of the translation, which was submitted for the following purpose:
 - ☐ international search (under Rules 12.3 and 23.1 b))
 - ☐ publication of the international application (under Rule 12.4).
 - ☐ international preliminary examination (under Rule 55.2 and/or Rule 55.3).
2. With regard to the **constituent parts*** of the international application, the report is based on *(replacement pages which were submitted to the application office in compliance with a request according to Article 14 are considered "originally filed" in the context of this report and are not attached to the report)*:

Specification, pages:

| | |
|-----------|---|
| 1-3, 6-21 | as originally filed |
| 4-5 | received on December 21, 2004 with letter dated December 17, 2004 |

Claims, Nos.:

| | |
|-----|---|
| 1-7 | received on December 21, 2004 with letter dated December 17, 2004 |
|-----|---|

Drawings, Pages:

| | |
|---------|---------------------|
| 1/9-9/9 | as originally filed |
|---------|---------------------|

☐ a sequence listing and/or any accompanying tables – see supplementary field regarding the sequence listing.

3. ☐ The amendments have resulted in the cancellation of:
 - ☐ the description: pages
 - ☐ the claims: Nos.
 - ☐ the drawings: sheets/figures:
 - ☐ the sequence listing (*exact details*):
 - ☐ any tables belonging to the sequence listing (*exact details*):

4. ☐ This report has been prepared as if (some of) the amendments attached to this report and listed below had not been made, since for the reasons specified in the supplementary field they are considered by this Authority to go beyond the disclosure as originally filed (Rule 70.2 c)).

☐ the description: pages

☐ the claims: Nos.

☐ the drawings: sheets/figures:

☐ the sequence listing (*exact details*):

☐ any tables belonging to the sequence listing (*exact details*):

* If Item 4 applies, some or all of these pages can be furnished with the comment "replaced".

Field No. II Priority

1. ☒ This report was prepared without consideration of the claimed priority, since the following requested documents were not submitted by the prescribed deadline:

☒ Copy of the earlier application whose priority was claimed (Rule 66.7(a)).

☐ Translation of the earlier application whose priority was claimed (Rule 7(b)).

2. ☐ This report was prepared without consideration of the claimed priority, since the priority claim proved invalid (Rule 64.1). Therefore, for the purposes of this report, the international application date cited above is regarded as the authoritative date.

3. Any additional comments:

Field No. V Substantiated determination according to Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination.

1. Determination

| | |
|----------------------------|-----------------|
| Novelty (N) | Yes: Claims 1-7 |
| | No: Claims |
| Inventive Activity (AI): | Yes: Claims 1-7 |
| | No: Claims |
| Commercial Viability (CV): | Yes: Claims 1-7 |
| | No: Claims |

2. Documents and Declarations (Rule 70.7):

See attached page.

**INTERNATIONAL PRELIMINARY
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PATENTABILITY (ATTACHED PAGE)**

International File No.: **PCT/EP2004/008130**

Re Item V

Substantiated determination according to Rule 66.2(a)(ii) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination

V.1 The following documents are cited:

D1: EP 0 340 504 A

D2: EP 0 256 410 A

V.2 **Claim 1** is novel for the following reason (Article 33(2) PCT):

The object of this claim differs from the rolling device disclosed by **D1** by virtue of the fact that the pressure-transmitting element has a U-shaped horizontal cross section and surrounds the block, at least partially, on three sides, and the pressure-transmitting element has an L-shaped vertical cross section perpendicular to the axis of the work roll and at least partially surrounds the upper side of the block (16).

V.3 **Claim 1** is based on inventive activity for the following reasons (Art. 33(3) PCT):

Proceeding from the most closely related prior art according to **D1**, the technical objective consists in improving the force transmission and guidance by the pressure-transmitting element. This objective is achieved by the features in accordance with V.2 in **Claim 1**, which represent further development of the prior art, and especially by virtue of the fact that the pressure-transmitting element is guided on three sides of the block.

The guide element known from **D1** surrounds the bending cylinder piston and not the

block. Although the features in accordance with V.2 are known from document **D2**, the center axis of the element that generates the compressive force that is described in **D2** does not intersect the work roll chocks. The principle of the introduction of force in **D2** and thus the design of the bending mechanism are different from the design solution in **D1**. Accordingly, the expert would not necessarily use the solution known from **D2** in the device known from **D1** without having to be inventively active.

V.4 The dependent **Claims 2 to 7** are further refinements of the object of **Claim 1** and thus also satisfy the criteria of the PCT with respect to novelty and inventive activity (Article 33(2)(3) PCT).

V.5 The object of **Claims 1 to 7** is undoubtedly commercially viable (Art. 33(4) PCT).